

**INSPECTION REPORT**  
**Tiodize , Inc. (11-1-132)**

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Inspection date: 06/19/2013  
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**INSPECTION PURPOSE:**

To verify wet manufacturing processes, process/rinse tanks inventory, and piping and process/rinse tanks condition. Also to verify if the permit category Electroplating>10K is still applicable to Tiodize wastewater discharge permit.

**MANUFACTURING PROCESS DESCRIPTION:**

Tiodize is a job shop providing finishing services for aerospace, commercial, medical, and military/defense applications. Waste/Wastewater generating operation(s) include hard anodize type III, sulfuric anodize type II, DI water seal, dichromate seal, nickel seal, aluminum etch, acid deoxidizer, chem film, dye (black, blue, gold, green, & red), alkaline cleaning, phosphoric acid, passivation type II and type VI, chromate treatment, titanium anodize, titanium etch, phosphate fluoride, alkaline degreaser, fluorescent penetrant, and associate drag-out and rinsing.

**PRETREATMENT SYSTEM DESCRIPTION:**

Tiodize operates a continuous pretreatment system (PTS) consisting of chromium reduction, hydroxide precipitation, coagulation/flocculation, clarification, sludge holding tank, filter press, and effluent pH adjustment. Spent solutions are bled into the continuous PTS at a control rate via a holding tank and metering pump, or wastehailed off-site.

**PRETREATMENT OPERATION AND MAINTENANCE**

ORP/pH probes and meters are maintained with routine cleaning and calibration. Mixers and metering pumps are working properly. Operating parameters at Cr reduction, and heavy metal precipitation are correct. Treatment log book is well recorded. Wastewater operator has many years of experience.

**INSPECTION FINDINGS**

The wet manufacturing processes are the same. However the following new configurations were noted:

- Three stage counter current rinse tank numbers 6/8/9 are now reconfigured into two sets of 2-stage counter current rinse tank numbers 8/9, and numbers 6/11. It is also observed that the piping condition at these rinses appeared new. This change was not updated in the recent permit renewal application.
- Two cylindrical dye tanks appeared in fairly new condition.
- One process tank #41, titanium etch, was added. This addition was not updated in the recent permit renewal application.

**RECOMMENDATION:**

Based on the current EPA metal finishing new source implementation, category Metal Finishing 433 PSNS applies to Tiodize wastewater discharge permit, NOT Electroplating>10K.